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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,132	03/04/2004	Taketomi Asami	12732-061002	3912

26171 7590 01/14/2005

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EXAMINER	
NGUYEN, JOSEPH H	

ART UNIT	PAPER NUMBER
2815	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/792,132	ASAMI ET AL.	
	Examiner	Art Unit	
	Joseph Nguyen	2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *34-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *34-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/918,547.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/4/04, 5/24/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 34-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 34, Yamazaki et al. discloses on figure 17 a semiconductor device comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more

of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claim 35, Yamazaki et al. discloses on figure 17 a semiconductor device comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55); and wherein the semiconductor film comprises nitrogen with a concentration less than 5 $X10^{18}$ atoms/cm^3, carbon wit a concentration less than $5X10^{18}$ atoms/cm^3, and oxygen with a concentration less than $1X10^{19}$ atoms/cm^3 (col. 3, lines 25-30).

Regarding claim 36, Yamazaki et al. discloses on figure 17 a semiconductor device comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55); and wherein the semiconductor film is obtained by crystallizing an amorphous semiconductor film formed by intermittent electric discharge while setting a repetition frequency to 10 KHz or below and a duty ratio to 50% or below (table 1).

Regarding claim 37, Yamazaki et al. discloses on figure 17 a semiconductor device comprising a semiconductor film 428 having a polycrystal structure with a

composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55); wherein the semiconductor film comprises nitrogen with a concentration less than 5 X10 ^{18} atoms/cm^3, carbon wit a concentration less than 5X10 ^{18} atoms/cm^3, and oxygen with a concentration less than 1X10 ^{19} atoms/cm^3 (col. 3, lines 25-30), wherein the semiconductor film is obtained by crystallizing an amorphous semiconductor film formed by intermittent electric discharge while setting a repetition frequency to 10 KHz or below and a duty ratio to 50% or below (table 1).

Regarding claims 38-41, Yamazaki et al. discloses that a thickness of the semiconductor film is in a range from 10 nm through 100 nm (col. 10, lines 26-27).

Regarding claims 42-45, Yamazaki et al. discloses on figure 17 the semiconductor film 428 forms a channel formation region.

Regarding claims 46-49, Yamazaki et al. discloses the semiconductor device is an EL display device.

Regarding claim 50, Yamazaki et al. discloses on figures 17 and 31C a portable data terminal comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more

of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claim 51, Yamazaki et al. discloses on figures 17 and 31B a video camera comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claim 52, Yamazaki et al. discloses on figures 17 and 32C a still camera comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claim 53, Yamazaki et al. discloses on figures 17 and 32A a personal computer comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more

of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claim 54, Yamazaki et al. discloses on figures 17 and 33C a television comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claim 55, Yamazaki et al. discloses on figures 17 and 33A a video camera comprising a semiconductor film 428 having a polycrystal structure with a composition ratio of germanium to silicon being 0.1 atomic percent or more and 10 atomic percent or below (col. 12, lines 35-40); and a wiring 421 adjacent to the semiconductor film, wherein {101} planes in the semiconductor film reach 30% or more of all lattice planes detected by electron backscatter diffraction (table 2 and col. 14, lines 50-55).

Regarding claims 56-61, Yamazaki et al. discloses that the semiconductor film comprises nitrogen with a concentration less than 5 $X10^{18}$ $atoms/cm^3$, carbon wit a concentration less than $5X10^{18}$ $atoms/cm^3$, and oxygen with a concentration less than $1X10^{19}$ $atoms/cm^3$ (col. 3, lines 25-30).

Regarding claims 62-67, Yamazaki et al. discloses that the semiconductor film is obtained by crystallizing an amorphous semiconductor film formed by intermittent

electric discharge while setting a repetition frequency to 10 KHz or below and a duty ratio to 50% or below (table 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN
January 17, 2005

ALLAN R. WILSON
PRIMARY EXAMINER